

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
AT&T Petition to Launch a Proceeding	)	
	)	
Concerning the TDM-to-IP Transition;	)	GN Docket No. 12-353
	)	
and NTCA Petition for Rulemaking	)	
	)	
to Promote and Sustain the Ongoing	)	
	)	
TDM-to-IP Evolution	)	

**COMMENTS OF BANDWIDTH.COM, INC.**

Greg Rogers  
Deputy General Counsel  
Bandwidth.com, Inc.  
Venture III, 5<sup>th</sup> Floor  
900 Main Campus Drive  
Raleigh, NC 27606  
(919) 439-5399

January 28, 2013

## **I. BACKGROUND**

Based in Raleigh, North Carolina, Bandwidth.com, Inc. (“Bandwidth”) is an innovative rapidly growing facilities and Internet Protocol (“IP”) based communications service provider. Seeing the technological and economic promise of IP networks, Bandwidth was an early entrant into the voice-over-IP (“VoIP”) market. Initially operating as a reseller of VoIP services by partnering with underlying CLECs and wholesale VoIP providers, as Bandwidth continued to grow it invested millions of dollars of risk capital to establish a facilities-based competitive carrier pursuant to the FCC’s regulatory framework for telecommunications and information service providers. Furthering its vision of the IP future, in 2010, Bandwidth acquired dash Carrier Services, one of only three tier one emergency service providers in the country that route VoIP 9-1-1 calls directly into the nation’s 9-1-1 infrastructure (referred to as a VoIP Positioning Center, or VPC). Today, Bandwidth powers fellow IP innovators by operating one of the largest integrated 9-1-1 and interconnected VoIP networks in the country. Bandwidth is thus uniquely positioned to be a catalyst for continued IP innovation and keenly interested in the public policies concerning the evolution from the public switched telephone network (“PSTN”) to an all-IP marketplace.

## **II. INTRODUCTION**

The National Broadband Plan<sup>1</sup> aimed to overcome the myriad remaining obstacles preventing the full realization of the inherent benefits of broadband Internet services. Yet, as the competing petitions in this proceeding demonstrate, relatively widespread disagreement as to how far and how fast the Commission should move to reform the

---

<sup>1</sup> Federal Communications Commission, *Connecting America: The National Broadband Plan* (rel. Mar. 16, 2010) (“National Broadband Plan”).

current regulatory structure as the evolution continues toward IP-based services and infrastructures persists. The lengthy list of proceedings in the captions of early ex parte letters leading up to this proceeding<sup>2</sup> demonstrate that there has already been a great deal of collective industry thought given to the vast array of issues raised by the AT&T and NTCA Petitions.<sup>3</sup> So, while the Petitions are not necessarily novel, addressing the issues they raise is critical and Bandwidth wholeheartedly supports ambitious, comprehensive, and well-reasoned reforms to an increasingly outmoded regulatory system.

An aggressive transition off the PSTN must stay true to the fundamental principles of the National Broadband Plan and be holistic. After initiating reforms for terminating access and universal service distributions<sup>4</sup>, the Commission must now work to stimulate the inevitable transition to an all-IP future in an orderly and non-discriminatory manner more broadly. As the NTCA Petition correctly points out, there are legitimate regulatory and public policy justifications for retaining Commission oversight of voice communications, including consumer protections and promoting competition that inures consumer benefits.<sup>5</sup> There must be threshold-level rules that are

---

<sup>2</sup> See e.g. Letter from Robert W. Quinn, Jr. (Senior Vice President, AT&T) to Marlene Dortch, WC Docket No. 10-90 *et. al.* (filed Aug. 30, 2012).

<sup>3</sup> AT&T Petition to Launch a Proceeding Concerning the TDM-to-IP Transition, GN Docket No. 12-353 (filed Nov. 7, 2012) (“AT&T Petition”); Petition of the National Telecommunications Cooperative Association for a Rulemaking to Promote and Sustain the Ongoing TDM-to-IP Evolution, GN Docket No. 12-353 (filed Nov. 19, 2012) (“NTCA Petition”)(collectively “AT&T and NTCA Petitions” or “Petitions”).

<sup>4</sup> *In the Matter of Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform - Mobility Fund*, Report and Order and Further Notice of Proposed Rulemaking, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, , FCC 11-161 (rel. Nov. 18, 2011) (“*USF/ICC Reform Order and FNPRM*”)(citations to Comments filed in these proceedings will simply reference the “*USF/ICC Reform Order and FNPRM Proceeding*”).

<sup>5</sup> See generally NTCA Petition’s policy description of “smart regulation”, at 5-12.

clearly understandable, including what it means to be a “telecommunications carrier” under the law, now and in an all-IP future. Left completely unregulated, the discriminatory effects of self-interested behavior are likely to manifest themselves in an all out “race to the bottom.” An immediate flash-cut to an all-IP market is not feasible and piecemeal reform is not a legitimate alternative; rather, it is critical that the Commission establish a holistic federal regulatory structure for IP services through an aggressively managed transition period forthwith.

## **II. COMMENTS**

### **A. The Realization of the Benefits of IP Networks Requires Commission Direction to Strike a Delicate Balance Between Regulation and Free-Market Principles**

An IP interconnection methodology that enables competing carriers to embrace the flexibility and technological advantages of IP on fair and non-discriminatory terms must be a fundamental part of any proceeding the Commission conducts concerning the rapid transition away from the PSTN. The Commission must follow a process to eliminate barriers to IP-to-IP interconnection in a manner that is consistent with the fundamental public policy goals of the 1996 Act<sup>6</sup> to spur competition and innovation while simultaneously respecting the free-market success story of the Internet itself. The biggest and the strongest cannot be allowed to control the marketplace, but an inability to keep pace with inevitable technological change is not a regulatory solution either.

Nowhere are the economic advantages of IP technology more acute than with respect to the vastly more flexible network architectures it enables as compared to the PSTN. Bandwidth urges the Commission to move ahead aggressively with policies and

---

<sup>6</sup> Telecommunication Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (“1996 Act” or “Act”)

incentives that support competition, investment and innovation in the marketplace through holistic reforms that provide the proper economic incentives for both incumbent and competitive carriers to move forward to IP interconnection in a non-discriminatory manner. There are both market-based incentives as well as regulatory levers that the Commission can deploy in this mission, but it must be careful that the parties that possess negotiation leverage are not simply given a regulatory blank check and entrusted to innovate. History has demonstrated that such an approach does not yield disruptive technological breakthroughs that ultimately serve the public interests. For these reasons, Bandwidth believes innovation must be conceived on a larger scale than either the AT&T or NTCA Petitions seem to envision from an IP technological and architectural perspective.<sup>7</sup>

The inevitable growth in IP-originated traffic should not occur in a manner whereby incumbents are allowed to establish unregulated IP interconnection to achieve cost-benefits for their own IP-originated traffic in certain locations or with certain parties while working to strengthen lucrative intercarrier compensation (“ICC”) revenue streams in other instances.<sup>8</sup> The incentives to maintain existing TDM/PSTN infrastructure where it generates attractive revenue from competitors, while continuing to dispute the plain meaning of “symmetry” or transitioning quickly to IP where ICC revenues are outstripped by costs reductions are basic self-interested economic decisions.<sup>9</sup> The

---

<sup>7</sup> See e.g. AT&T Petition at 20 (describing proposal to conduct “trial runs” in ILEC selected wire centers).

<sup>8</sup> See Opening Comments of Sprint Comments at 9-10; Charter Communications Comments at 14; Time Warner Cable Comments at 10-12; Google Comments at 15-16 in *ICC/USF Reform Order and FNPRM Proceeding*.

<sup>9</sup> See e.g. Letter from John T. Nakahata, *et. al.*, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 96-45, CC Docket No. 01-92, WC Docket No. 03-109, WC Docket No. 10-90, GN Docket No. 09-51 (filed October 4, 2012).

problem with allowing such behavior to occur unchecked, or as determined solely by the ILECs, is that the providers making these decisions continue to possess disproportionate market power as it relates to network interconnection and intercarrier compensation matters.

Today, there is virtually no debate that IP technology fundamentally undermines traditional assumptions about a telephone number reliably representing a particular geographic location.<sup>10</sup> As IP technology continues to break down the geographic boundaries of the past, the Commission should endorse IP interconnection policies that contemplate fewer physical connections, not working to solidify PSTN interconnection in every local calling area when it is not cost effective or technically necessary to do so.<sup>11</sup> Therefore, Bandwidth does not believe AT&T's "trial run" proposal that is limited to discrete wire centers of its choosing is consistent with the nature of IP networking.<sup>12</sup> Rather, requiring service providers to establish no more than one point of interconnection in each state in which they will exchange IP traffic, is much a more appropriate starting point for interconnecting IP networks given their geographic scope and the declining cost of transport.<sup>13</sup> Even in a "trial run" scenario, this approach would prove to be much more efficient and useful as a learning tool for future deployments than proposals to require the

---

<sup>10</sup> See *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211, Memorandum Opinion and Order, 19 FCC Rcd 22404 (2004).

<sup>11</sup> See Verizon Comments in *ICC/USF Reform Order and FNPRM Proceeding* at 15 ("In an IP network, there is no need for a dedicated physical connection to carry a call all the way to the terminating party, and the switches that separate calls into local, tandem, and interexchange segments can be eliminated."); *USF/ICC Reform Order and FNPRM*, at ¶¶ 1310, 1316.

<sup>12</sup> AT&T Petition at 20-23.

<sup>13</sup> See *ICC/USF Reform Order and FNPRM* Comcast Corporation Comments at 23; Charter Communications Comments at 14; Google Comments at 15-16.

creation of multiple, new IP interconnection arrangements that remain based upon PSTN architectural mindsets.

Just as PSTN-centric boundaries such as those based on local calling areas, end offices, wire centers or tandems will become irrelevant in an all-IP network interconnection architecture, so too will the technically artificial boundaries of larger geographic areas such as states, LATAs or MSAs. If a single IP interconnection point can efficiently serve a population that exceeds the size of a LATA, an MSA or even multiple states, it would be inefficient to limit the use of IP interconnection to “wire centers,” even as a test methodology. Moreover, endorsing a regulatory regime that allows ILECs complete discretion to slowly select the specific wire centers in which to adopt IP-to-IP connections pushes the envelope too far without sufficient competitive protections to fall back on. As more voice services transition to IP and the prevalence of IP networks increase, it makes sense from a policy, network efficiency, and cost standpoint to exchange VoIP traffic on networks designed for IP, rather than pursuing interconnection policies that are rooted in familiar, yet inefficient, concepts from the PSTN.

## **B. Being a “Telecommunications Carrier” Remains Critically Relevant**

Rather than entertaining the prospect of a flash-cut to an entirely unregulated environment or proceeding in a piecemeal fashion on distinct sub-issues, the path to achieving the public interest is for the Commission to aggressively shift the industry’s focus to the sweeping reform that is fundamentally embodied in the Commission’s *ICC FNPRM* already.<sup>14</sup> While Bandwidth has been and continues to be an outspoken

---

<sup>14</sup> *ICC/USF Reform Order and FNPRM*, ¶ 796.

proponent of policies that encourage the aggressive transition to an all-IP marketplace, an industry environment where fundamental but discrete rules of the road are subject to sudden and arbitrary shifts in favor of a chosen few on a moment's notice is not viable.<sup>15</sup> Because the *USF/ICC Reform Order* and the attendant *ICC FNPRM* set the industry on a defined procedural path that is fundamentally premised upon the fact that being a certificated telecommunications carrier would remain relevant over the course of the terminating access compensation transition period, any further reforms concerning the PSTN-to-IP transition must take both the legal bases and time schedule of this order into account.

Bandwidth, like hundreds of other telecommunications carriers across the country, has invested considerable resources becoming and operating a certificated telecommunications carrier for years. As AT&T points out in its Petition, being a certificated “telecommunications carrier” includes multiple burdens, but it also carries certain well understood benefits, like the right to interconnect with the PSTN on “just, reasonable and non-discriminatory” terms.<sup>16</sup> Non-carrier providers who are now pressing for special treatment to obtain direct access to numbering resources through rule waivers for the supposed purpose of achieving IP interconnections<sup>17</sup>, should also follow the well-established regulatory path that exists for all telecommunication carriers and information

---

<sup>15</sup> Comments of Bandwidth.com, Inc. on Section XVII. L-R *In the Matter of Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and Reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing an Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform - Mobility Fund*, Report and Order and Further Notice of Proposed Rulemaking, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, , FCC 11-161, p. 3, (rel. Nov. 18, 2011).

<sup>16</sup> 47 U.S.C § 251(c)(2)(D).

<sup>17</sup> See e.g. *Ex Parte* letter from Brita D. Strandberg, Wiltshire & Grannis, on behalf of Vonage Holdings Corp., to Marlene H. Dortch, Secretary, Federal Communications Commission, CC Docket No. 99-200 (Oct. 29, 2012).



services providers unless and until holistic, non-discriminatory regulatory reform is achieved. The California Public Utilities Commission succinctly emphasized these points in its opening comments in response to the Bandwidth Petition for Limited Waiver when it said:

The rules also are intended to protect the public interest, which is the Commission's mission. In light of that mission, it would be imprudent for the FCC to facilitate the business plan or goal of one company or a class of companies, when that plan or goal will have the effect of circumventing rules created to protect the public.<sup>18</sup>

In this regard, Bandwidth agrees with NTCA when it suggests that simply discarding previously well-understood interconnection and intercarrier compensation carrier relationships risks potential chaos.<sup>19</sup> As NTCA identified in its comments to the Bandwidth Petition Limited Waiver<sup>20</sup> as well, “[s]orting through the responsibility for such payments – and even figuring out where to seek enforcement of such payment obligations in the first instance – presents novel questions of law and policy that have yet to be answered or even examined in detail.”<sup>21</sup> The implications of granting all-out requests for deregulation, whether in this proceeding or Vonage's Petition for Limited Waiver,<sup>22</sup> should never be considered simply as a single provider's opportunity for cost

---

<sup>18</sup> Comments of the California Public Utilities Commission and the People of the State of California; In the Matter of Petitions for Waiver of Commission's Rules Regarding Access to Numbering Resources; CC Docket No. 99-200, p. 2 (Filed Aug. 23, 2012)(“CA PUC Comments to Bandwidth Petition for Limited Waiver”).

<sup>19</sup> See NCTA Petition at 11-12 (“Simply throwing out “the old” ... would create a regulatory vacuum, confuse consumers and even put some at risk, and generate massive waves of uncertainty that undermine ... investment in the IP evolution.”)

<sup>20</sup> Bandwidth.com, Inc. Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Access to Numbering Resources; CC Docket No. 99-200, (filed June 13, 2012)(“Bandwidth Petition for Limited Waiver”).

<sup>21</sup> Comments of The National Telecommunications Cooperative Association (“NTCA”), CC Docket No. 99-200, p. 4 (filed Aug. 23, 2012) citing May 31 NTCA Ex Parte.

<sup>22</sup> Vonage Holdings Corporation Petition for Limited Waiver of Section 52.15(g)(2)(i) of the Commission's Rules Regarding Access to Numbering Resources, CC Docket No. 99-200 (filed March 4, 2005)(“Vonage Petition for Limited Waiver”).

savings or another provider's lost revenue. Instead, issues that go to the very foundation of how services and service providers are defined and regulated should be about how an entire communications industry can expect to be able operate, innovate and achieve consumer benefits.<sup>23</sup>

Granting special favors will trigger aggressive moves by industry members to strip unwanted costs out of communications businesses where there are perceived burdens of being regulated as a telecommunications carrier. Prime examples of such costs that today are legitimately borne by all carriers are the costs to interconnect as a telecommunications carrier and the costs to exchange traffic as a telecommunications carrier. Should the Commission give its blessing to Vonage or other non-carrier entities, it would signal to those watching that they may again pursue arbitrage opportunities that appeared to be closed.<sup>24</sup>

The industry has operated with a basic understanding of how telecommunications carriers and information service providers are to be differentiated and positioned for regulatory purposes for almost three decades.<sup>25</sup> The technological evolution toward IP will continue to unfold irrespective of holistic regulatory reform but the AT&T and NTCA Petitions, together with efforts such as the recently established Technology

---

<sup>23</sup> See *Ex Parte* Letter and White Paper from Richard Shockey, Shockey Consulting, to Marlene H. Dortch, Secretary, FCC, CC Docket No. 99-200, WC Docket No. 10-90, GN Docket No. 09-51, WC Docket No. 07-135, WC Docket No. 05-337, CC Docket No. 01-92, CC Docket No. 96-45, WC Docket No. 03-109, WT Docket No. 10-208 (filed Sept., 4, 2012) (“Shockey Memo and White Paper”).

<sup>24</sup> *Ex Parte* Letter from Michael R. Romano, Senior Vice President-Policy, NTCA, to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 10-90, 07-135, 05-337, and 03-109, GN Docket No. 09-51, WT Docket No. 10-208, and CC Docket Nos. 01-92, 99-200, and 96-45 (filed May 31, 2012) (“May 31 NTCA *Ex Parte*”); See also *USF/ICC Reform Order*.

<sup>25</sup> *In re: MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 FCC 2d 682 (1983).

Transition Task Force<sup>26</sup>, represent the kind of critical procedural steps that are necessary to effectively reform fundamental foundations of the regulatory structure that control the most important operational aspects of the IP marketplace in a reasonable and orderly manner. In fact, as the California commission has recently pointed out, to do otherwise would be perplexing and problematic.<sup>27</sup>

### **III. CONCLUSION**

An aggressive transition off the PSTN must stay true to the fundamental principles of the National Broadband Plan and be holistic. After initial efforts to reform terminating access and universal service distributions, the Commission must work quickly to aggressively manage the inevitable transition to an all-IP future more broadly. While Bandwidth believes the procedural path to holistic reform arguably exists already, to the extent the Commission believes a new rulemaking along the lines articulated by AT&T or NTCA is necessary to accomplish an orderly transition from the PSTN to IP, Bandwidth supports such efforts. There are far-reaching and critically intertwined regulatory and public policy issues that are in need of a new framework but the rules that regulate the industry today must be accounted for. For example, threshold questions such as what it means to be a “telecommunications carrier” under the law, now and into an all-IP future, cannot be left unanswered. By conducting a thorough and comprehensive procedural review with an appreciation for the innovative forces of the free-market, the Commission can avoid a deregulatory “race to the bottom” and lead the charge toward

---

<sup>26</sup> See “FCC Chairman Julius Genachowski Announces Formation of ‘Technology Transitions Policy Task Force,’” News Release (Dec. 10, 2012).

<sup>27</sup> See CA PUC Comments to Bandwidth Petition for Limited Waiver, p. 2, stating: “California also is mystified as to why the Commission would seriously consider Vonage’s petition when Vonage, since its inception, has declared that the Commission’s rules – rules designed to give consumers minimal expectations of a telecommunications service provider – do not and should not apply to Vonage.”

holistic federal regulatory rules and policies designed for the IP marketplace of tomorrow.

Respectfully submitted,

\_\_\_\_\_/S/\_\_\_\_

Greg Rogers  
Deputy General Counsel  
Bandwidth.com, Inc.  
Venture III, 5<sup>th</sup> Floor  
900 Main Campus Drive  
Raleigh, NC 27606  
(919) 439-5399

January 28, 2013